

Fig. 1

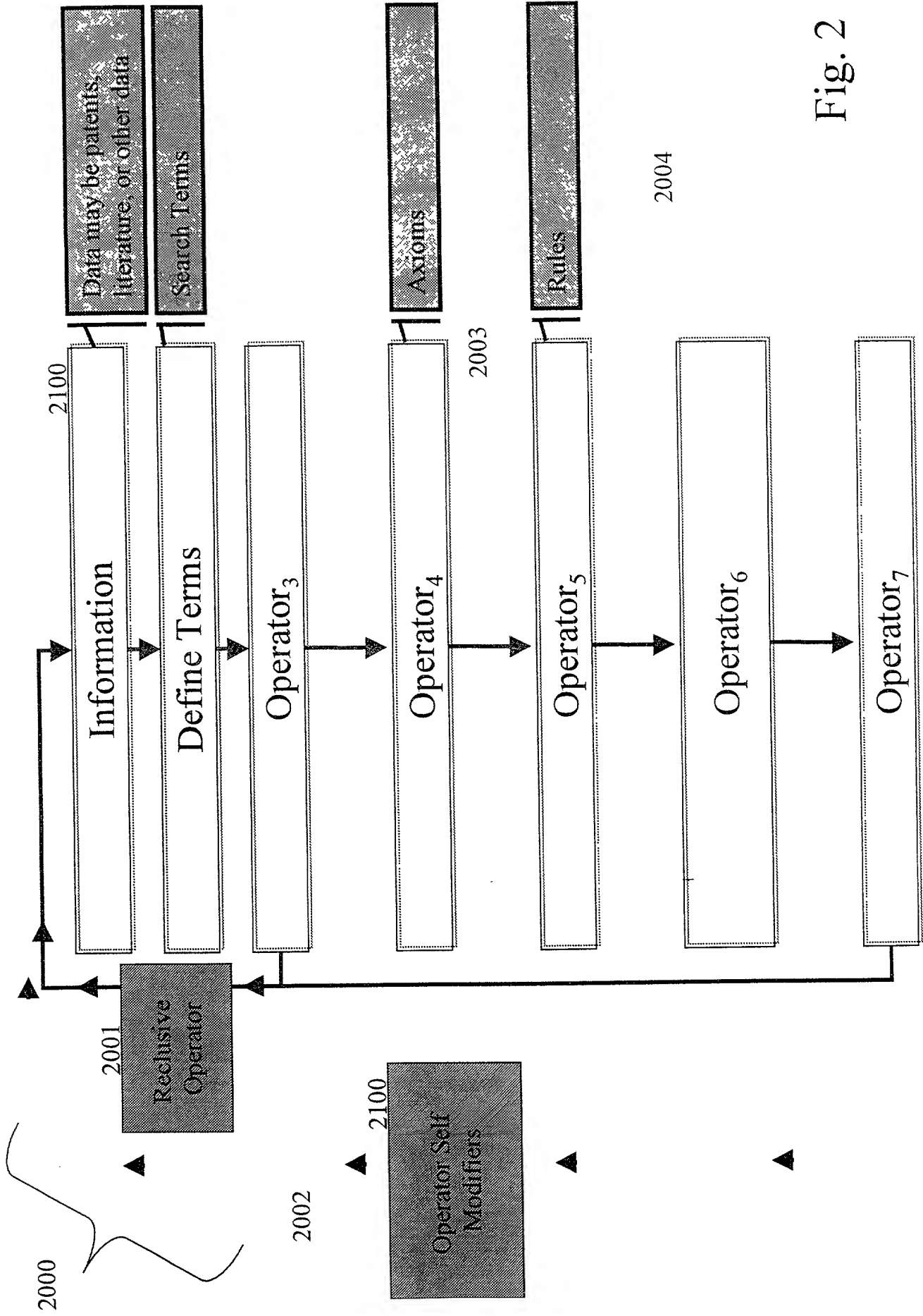


Fig. 2

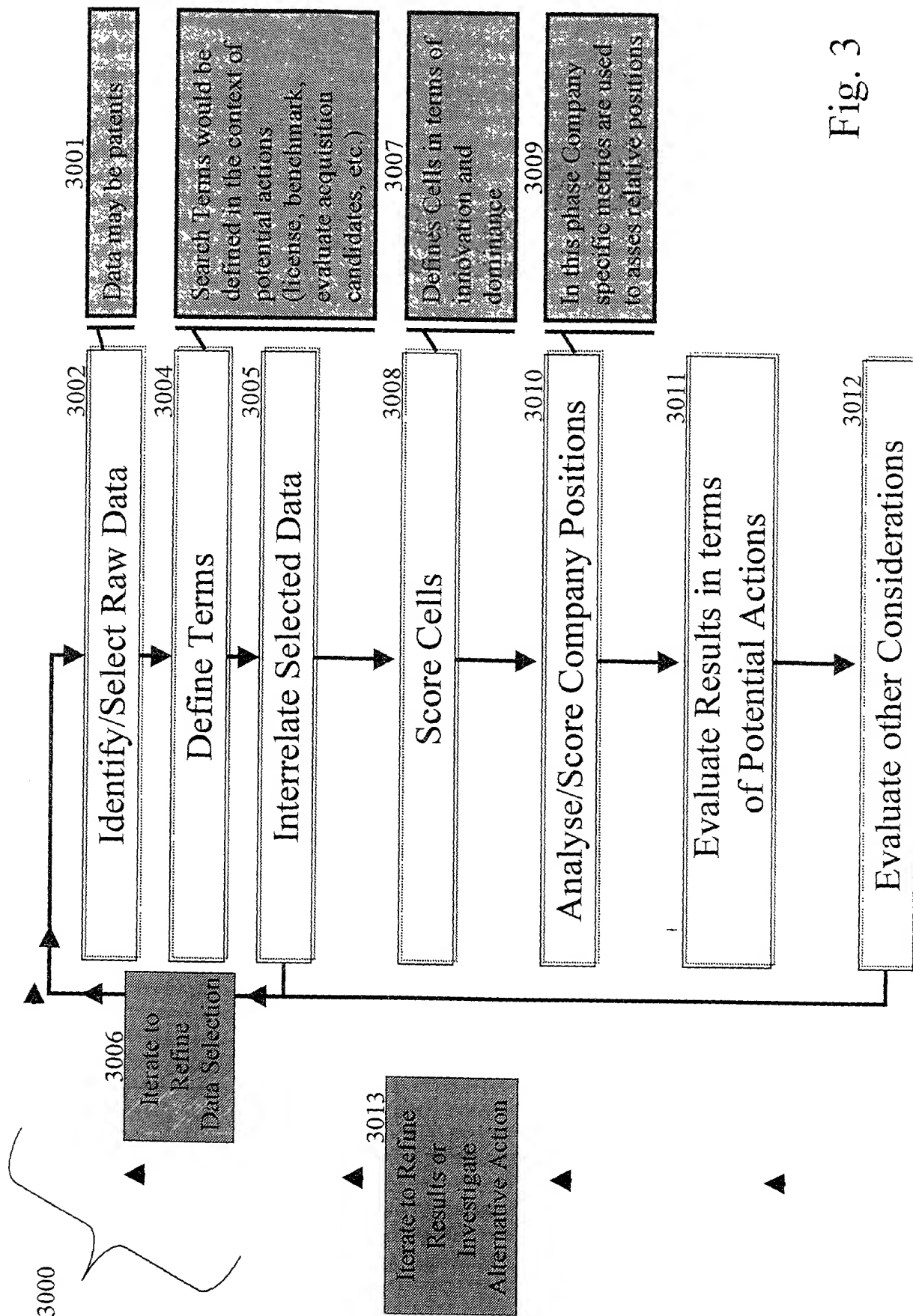


Fig. 3

# An Example of Source Data

## Infrared Technology

4081



Objects 4001

	Objects 4001				
	01 4005 photo-receptor or 4006	02 4009 digital image 4059	03 4010 digital scan 4060	04 4011 remote network or 4061	05 4012 thermal image 4062
	2969	5004	775	1224	5278
	4003	4072	4071	4063	4013
A near infrared 4008	1681	9	1	1	18
B far infrared 4064	550	0	0	0	3
C infrared 4065	21604	87	20	34	263
	62	4072	4071	34	249

4002

Actions

4015  
4014

4082



Fig. 4

# Initial Definitions

**SEARCH TERM** - a string of text to be found within the Text or Claims of desired patents.

Search Terms can be classified as either "Action" or "Object."

Several related Action Search Terms may be combined to reflect a single Action.

**CELL** - a cross section of Search Terms (Action x Object).

Cells are given a reference code (e.g. A01) to depict the combination of source Search Terms. The reference code may be followed by a C or T to note that the search terms were found within the Text or Claims of the included patents.

**CLUSTER** - a group of naturally related cells.

**FIELD** - a patent landscape defined by the composite of all cells.

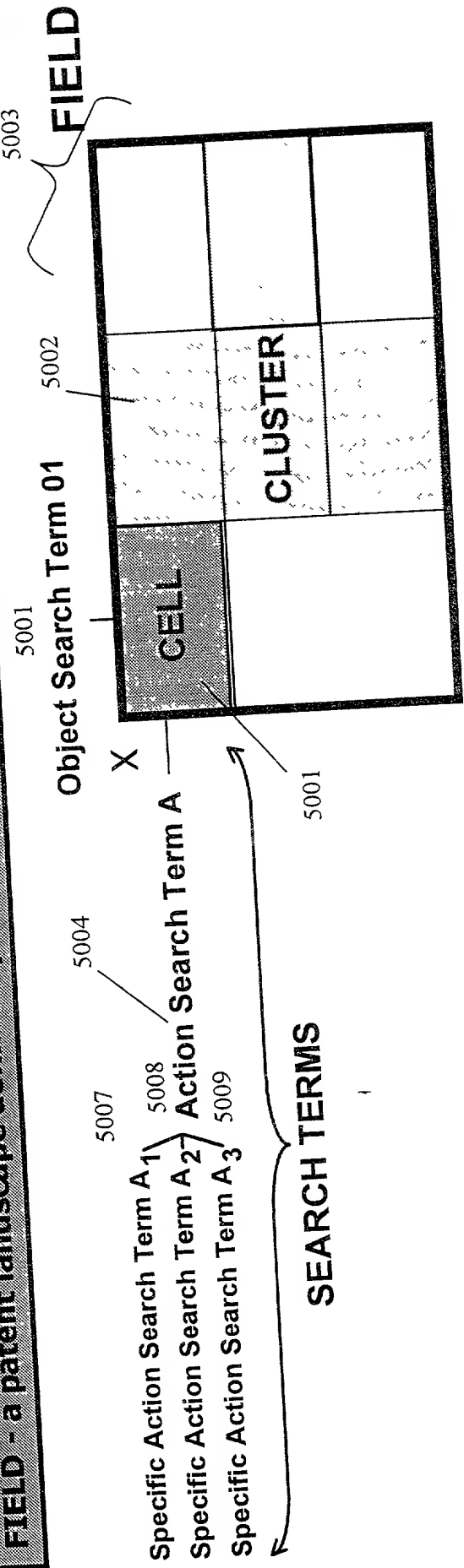


Fig. 5

# The Power to be Both Focused and Inclusive

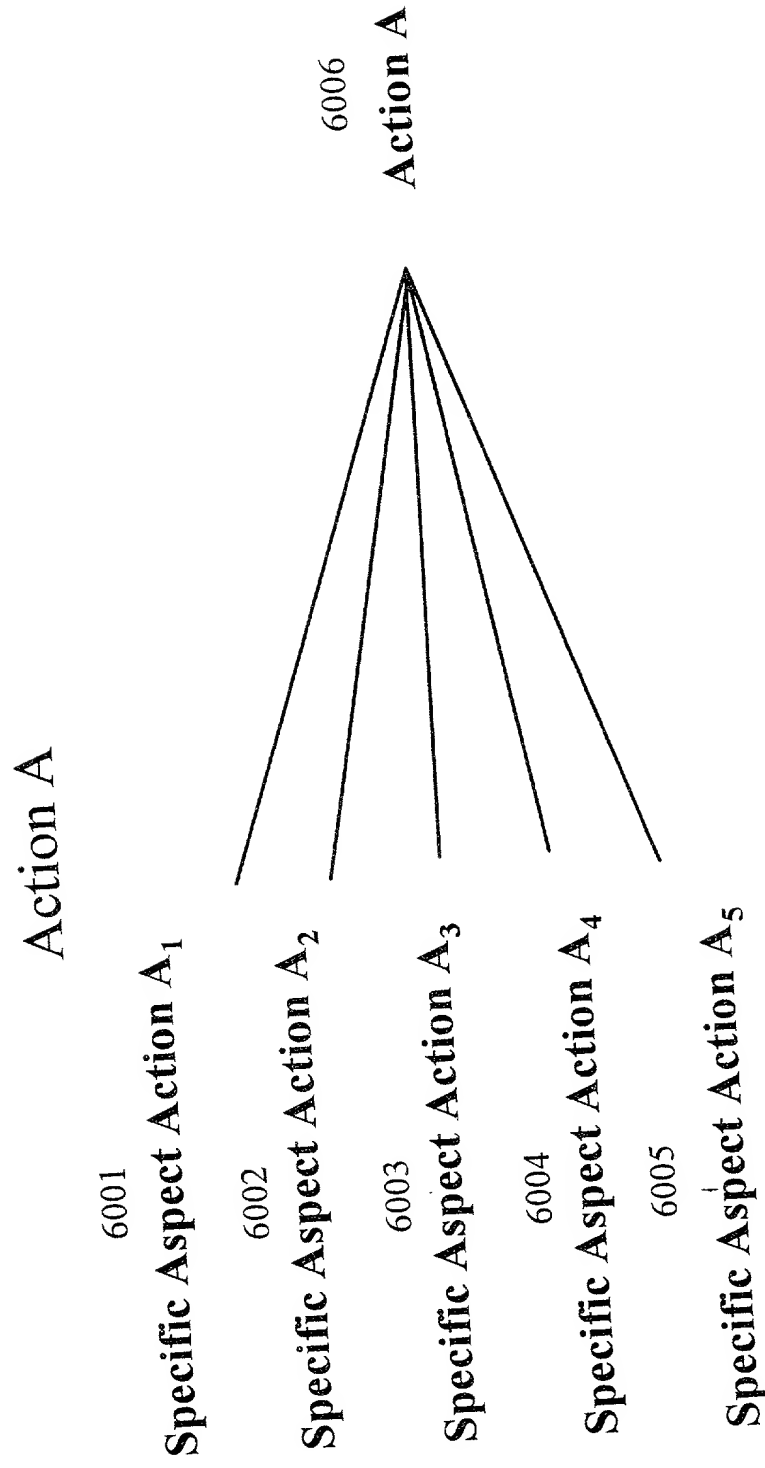


Fig. 6

\* patents identified in any of these specific terms are rolled into one Action Data set.

# Patent Crosstab Report

7011		7002	7003	7004	7005	7006	7007	7008	7009	7010
7001	Document ID	Title	Issued	Document Type	Hits	Weighted Hits	Weighted Action	Col	Col	Col
Assignee	Document ID	Title	Issued	Document Type	Hits	Weighted Hits	Weighted Action	Col	Col	Col
Object Weights										
He Holdings	6025595	Sprite thermal imaging system with electronic zoom	2/15/00	US	3	4	2	1	1	1
		SPRITE THERMAL IMAGING SYSTEM WITH ELECTRONIC ZOOM	8/13/98	PCT	3	4	3	1	1	1
Raytheon	WO 98/35496	SPRITE THERMAL IMAGING SYSTEM	8/13/98	PCT	3	4	4	1	1	1
Raytheon	WO 98/35497	Sprite thermal imaging system	4/14/98	US	3	4	3	1	1	1
He Holdings	5739531	Thermal sight trainer	9/11/84	US	3	5	3	3		
United States Of America	4470816	Method and apparatus for thermal radiation imaging	2/8/00	US	2	4	3	1	1	1
Liu, Zhong Qi	6023637	A SYSTEM FOR THE MONITORING AND DETECTION OF HEAT SOURCES IN OPEN AREAS	10/20/99	EP-B	2	4	2	1		1
Empresa Nacional Bazan de Construcciones Naval Militares	EP 0 611 242 B1	Method of detection of cancerous lesions by their effect on the spatial distribution of modulation of temperature and homogeneity of tissue	10/5/99	US	2	4	1	2		1
Omnicorder Technologies	5961466	Real time adaptive digital image processing for dynamic range remapping of imagery including low-light-level visible imagery	6/1/99	US	2	4	1	1		1
Massachusetts Institute Of Technology	5909244	Method and apparatus for analyzing an image to detect and identify defects	9/29/98	US	2	4	4	1	1	1
Vachtsevanos, George J.	5815198	Simplified simulation of effects of turbulence on digital imagery	5/26/98	US	2	4	1	4		1
United States Of America	5756990	Thermal imaging device	4/7/98	US	2	4	4	2		1
Hughes Electronics	5737119	Thermal imaging device with selectively replaceable telescopic lenses and automatic lens identification	9/30/97	US	2	4	4	2		1
Hughes Electronics	5673143	Digital imaging device optimized for color performance	9/16/97	US	2	3	3	2	1	1
Eastman Kodak	5668596	THERMAL IMAGING DEVICE	3/12/97	EP-A	2	4	4	1		1
He Holdings Dba Hughes Electronics	EP 0 762 173 A2									

Fig. 7

# Assignee Rollup

8001

8001

8022 8023 8024 8025 8026

Rank	Assignee	Hits	Recent Patents/Hits	Weighted Hits	Weighted Action	C 01	R 001	G02 R 002	G03	R 003	G04 R 004	G05	R 005	G06 R 006
8002	Patents	62				62		87	20		34	263		249
8003	Issued Patents	49				49		65	17		23	206		222
8004	Applied Patents	13				13		22	3		11	57		27
8005	Recent Patents	16				16		33	10		11	55		40
8006	Issued Recent Patents	14				14		22	7		7	44		34
8007	Applied Recent Patents	2				2		11	3		4	11		6
8008	Dominance	0.48				0.48		0.26	0.20		0.44	0.48		0.40
8009	Recent Dominance	0.44				0.44		0.18	0.20		0.18	0.27		0.28
8010	Issued Innovation Factor 4	0.33				0.33		0.62	0.69		1.29	0.10		0.17
8011	Applied Innovation Factor 4	0.64				0.64		0.87	0.33		0.50	-0.02		0.19
8012	Predictive Innovation Factor 4	0.31				0.31		0.25	-0.36		-0.79	-0.12		0.02
1	Eastman Kodak	43	4			3		3	1			30	3	6
2	United States Of America	34	3					2	1			11	2	21
3	Texas Instruments	20	3					2			3	13	3	2
4	Xerox	18	4			17	3		1	1				
5	Minnesota Mining & Manufacturing	17	2			2		1	1			14	1	
6	Intl Business Machines	16	2					1			12	2		3
7	Hughes Electronics	16	3					1				10	2	5
8	Raytheon	15	11					5	2	2		6	6	2
9	Hughes Aircraft	14	13									3		11
10	Westinghouse Electric	12	12									2		10
11	Thermoscan	12	5											12
12	Konica	12	5			9	4					3	1	
13	Polaroid	12	1									8		2
14	Barr & Stroud	10	1					2	1			1		9
15	Matsushita Industrial Electric	10	3								1	9	3	

8020

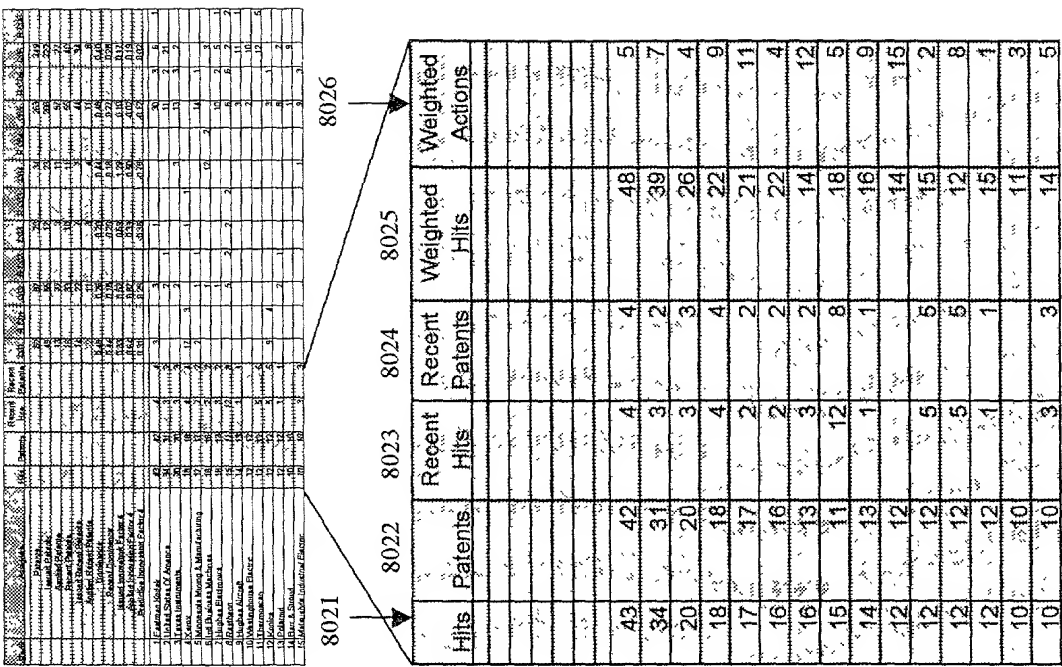
Fig. 8A



Fig. 8B

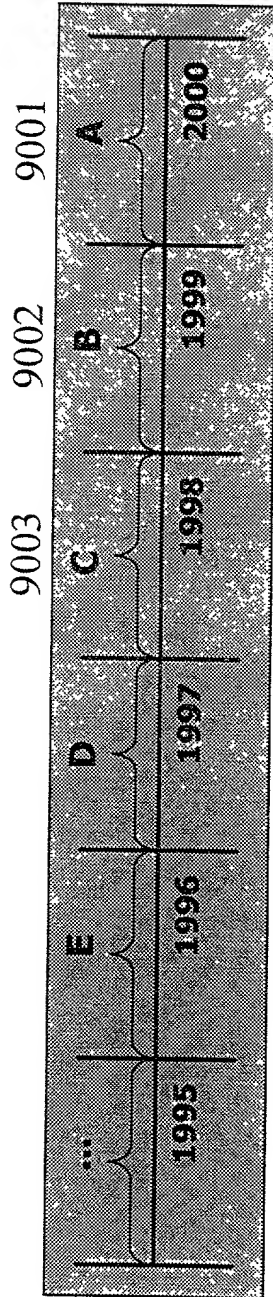
# Assignee Indices

## Assignee Rollup



# Cell Indices - Definitions

## Innovation Factor 1 (Applied or Issued)

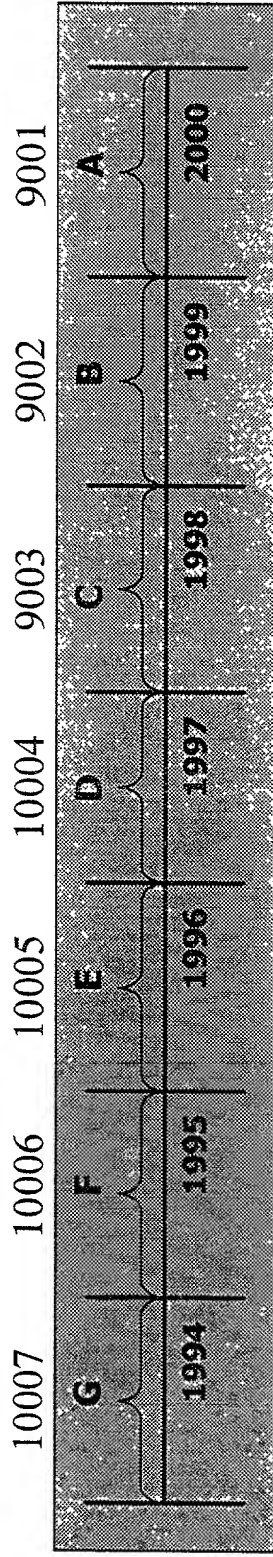


$$\text{Innovation Factor} = \frac{\text{9000} \quad \text{9001} \quad \text{A}}{(B+C)/2} \quad \begin{matrix} \text{9002} & \text{9003} \end{matrix}$$

Fig. 9

# Cell Indices - Definitions

## Innovation Factor 4 (Applied or Issued)



Innovation Factor 4 =

$$\left[ \begin{array}{l} \text{10012} \\ \left( \frac{A-B}{B} \right) \times 6 \end{array} \right] + \left[ \begin{array}{l} \text{10011} \\ \left( \frac{B-C}{C} \right) \times 5 \end{array} \right] + \left[ \begin{array}{l} \text{10013} \\ \left( \frac{C-D}{D} \right) \times 4 \end{array} \right] + \left[ \begin{array}{l} \text{10014} \\ \left( \frac{D-E}{E} \right) \times 3 \end{array} \right] + \left[ \begin{array}{l} \text{10015} \\ \left( \frac{E-F}{F} \right) \times 2 \end{array} \right] + \left[ \begin{array}{l} \text{10016} \\ \left( \frac{F-G}{G} \right) \times 1 \end{array} \right]$$

21 — 10017

Fig. 10

# Cell Selection Matrix

Cell Selection Index is calculated for each cell based on the implied suitability for joint ventures or internal development:

11001	A	License	4	4	1.25			6	0
	B	License						0	14
	C	License	20	15	5	10.5	1.75	3.5	
11002	A	Develop	6	16	1.25	1.25	14	0	
	B	Develop					0	6	
	C	Develop	5	15	7.5	7	0.75	1.5	
			photo-receptor or	01	02	03	04	05	06
			digital image				remote network or	thermal image	optic align
			digital scan						

Fig. 11

## Cell Selection Index

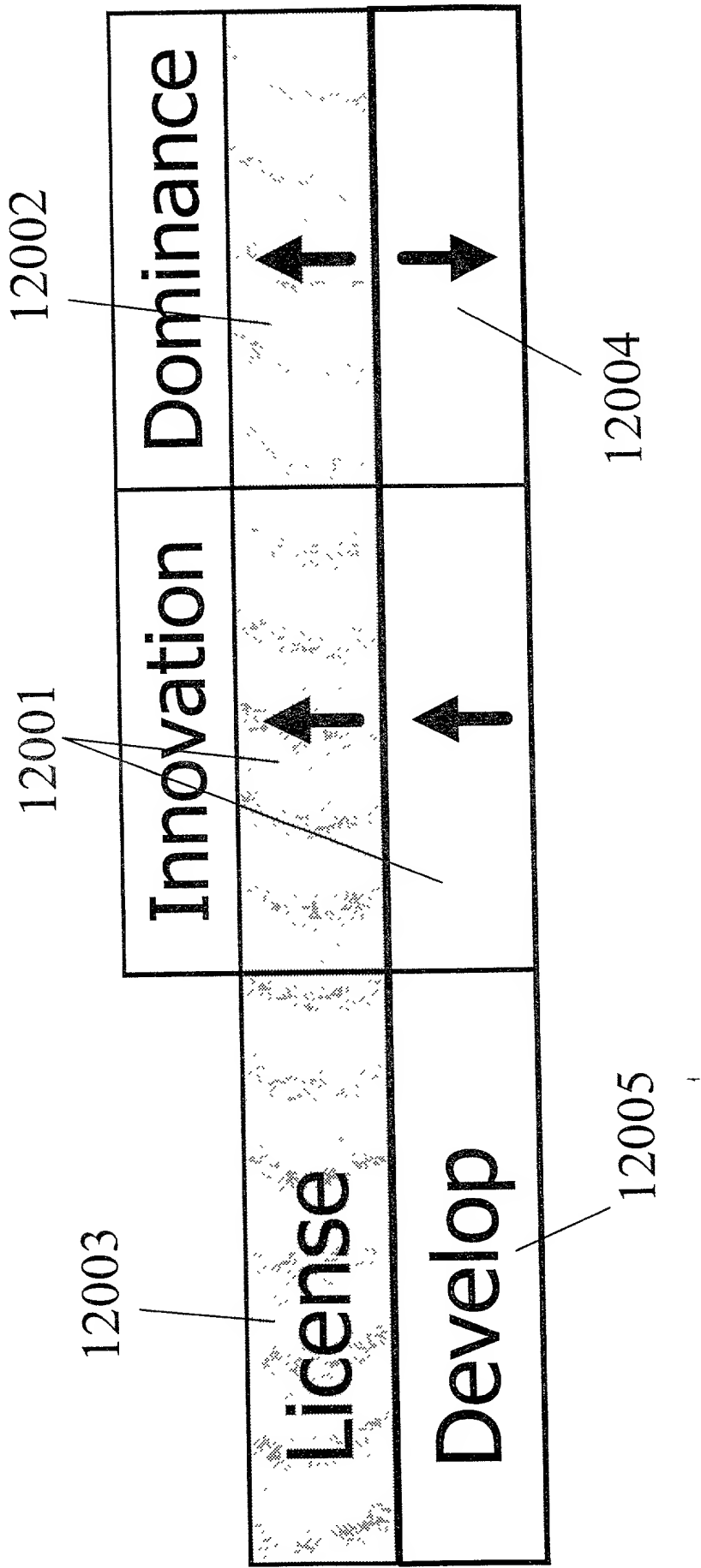


Fig. 12

# Cell Selection Matrix

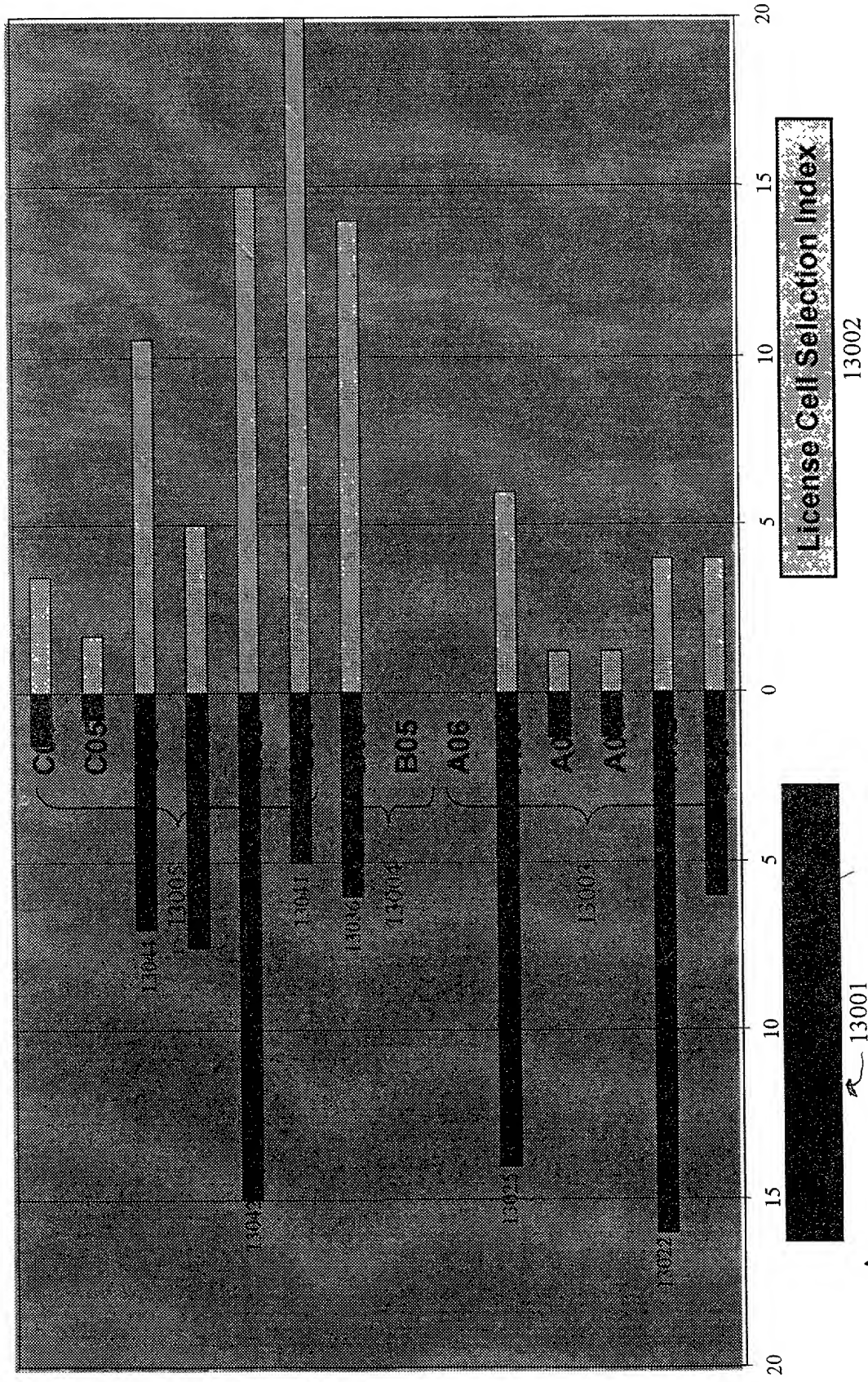


Fig. 13A

# Cell Selection Score - Bubble Chart

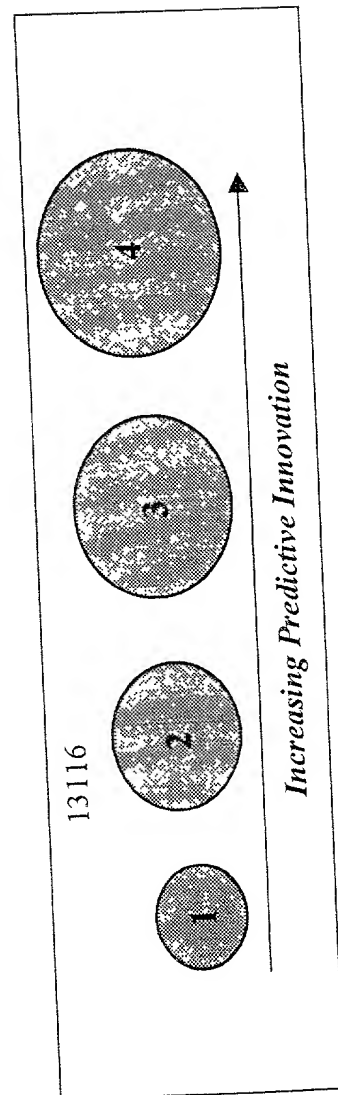
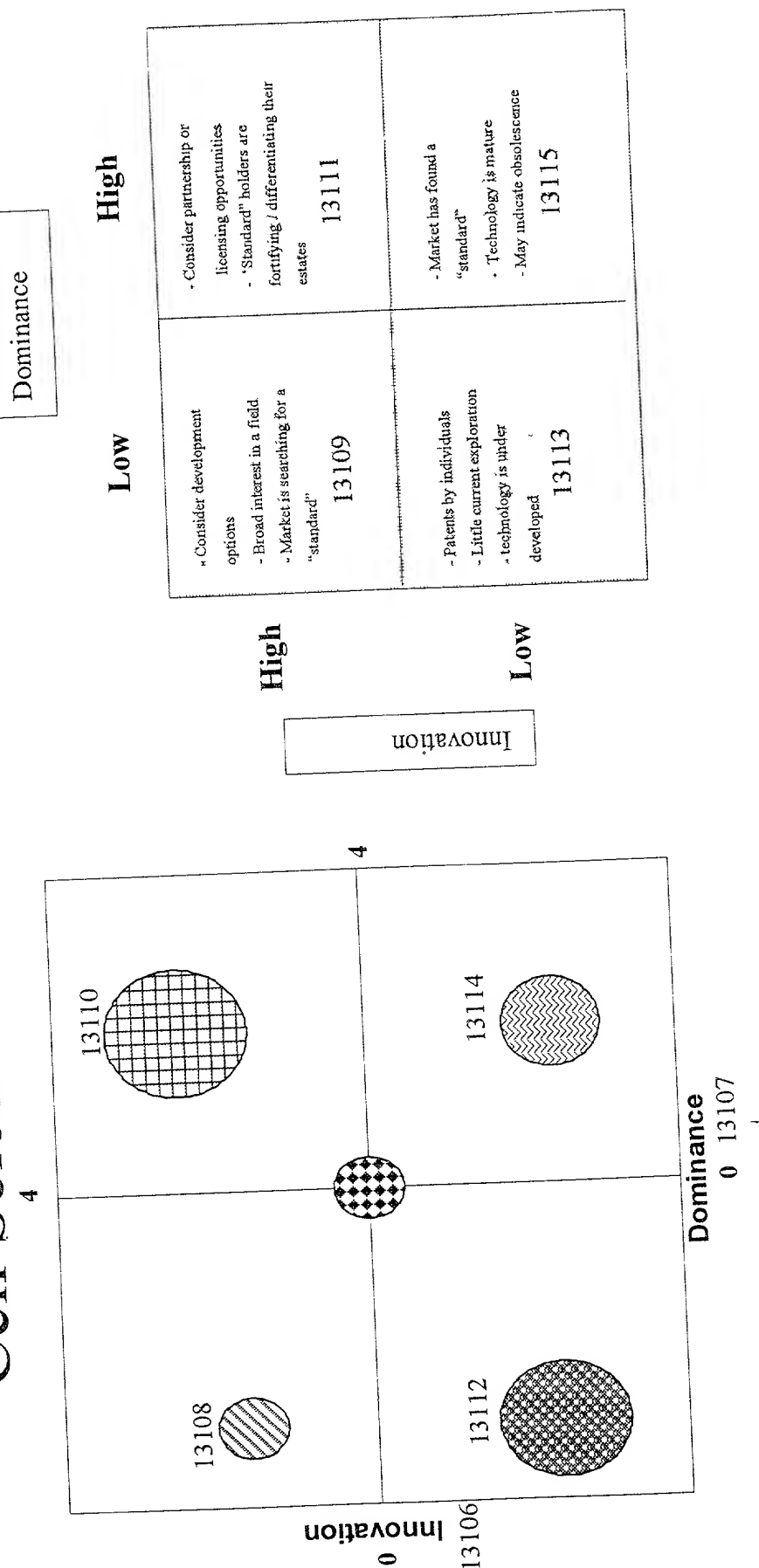


Fig. 13B

[illegible]14010

Fig. 14



# Assignee Composite Score

## Normalized

Rank	14001						14003	14004	14005	14006	14007	14008
	Assignee	C01	C02	C03	C04	C05						
1	A	15.4	25.6	8.5	0.0	100.0	photo-receptor or	digital image	digital scan	remote network or	thermal image	optic align
2	B	0.0	30.8	0.0	0.0	44.7						
3	C	0.0	16.7	0.0	21.4	47.5						
4	D	100.0	0.0	16.7	0.0	0.0						
5	E	10.0	16.7	0.0	0.0	44.5						
6	F	0.0	8.3	0.0	100.0	0.0						
7	G	0.0	10.3	0.0	0.0	45.4						
8	H	0.0	81.8	47.7	0.0	51.0						
9	I	0.0	0.0	0.0	0.0	9.6						
10	J	0.0	0.0	0.0	0.0	5.9						
11	K	0.0	0.0	0.0	0.0	0.0						
12	L	65.0	0.0	0.0	0.0	11.9						
13	M	0.0	25.0	0.0	0.0	23.7						
14	N	0.0	0.0	0.0	0.0	3.0						
15	O	0.0	0.0	0.0	7.1	35.6						

15010

Fig. 15A

# Assignee Composite Score

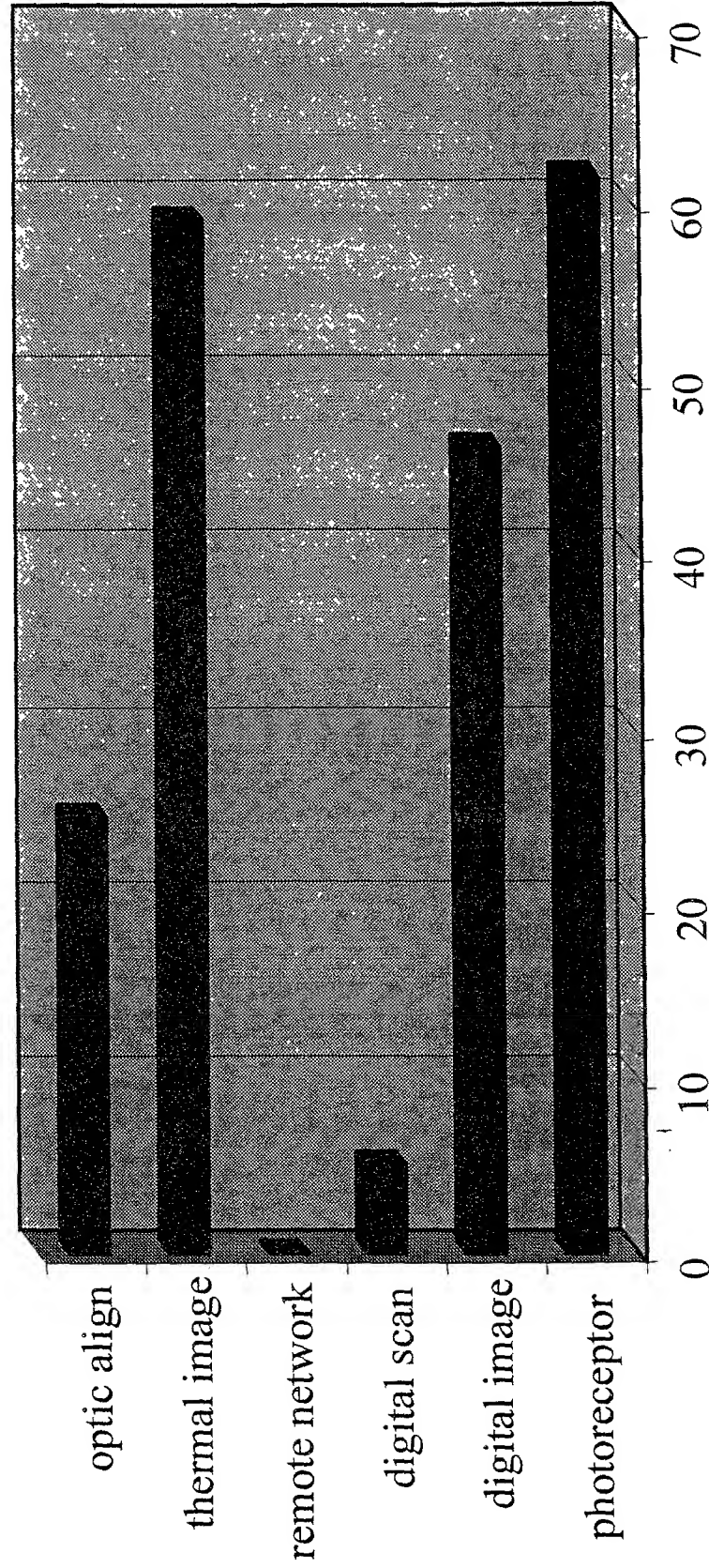


Fig. 15B

# Assignee Composite Score

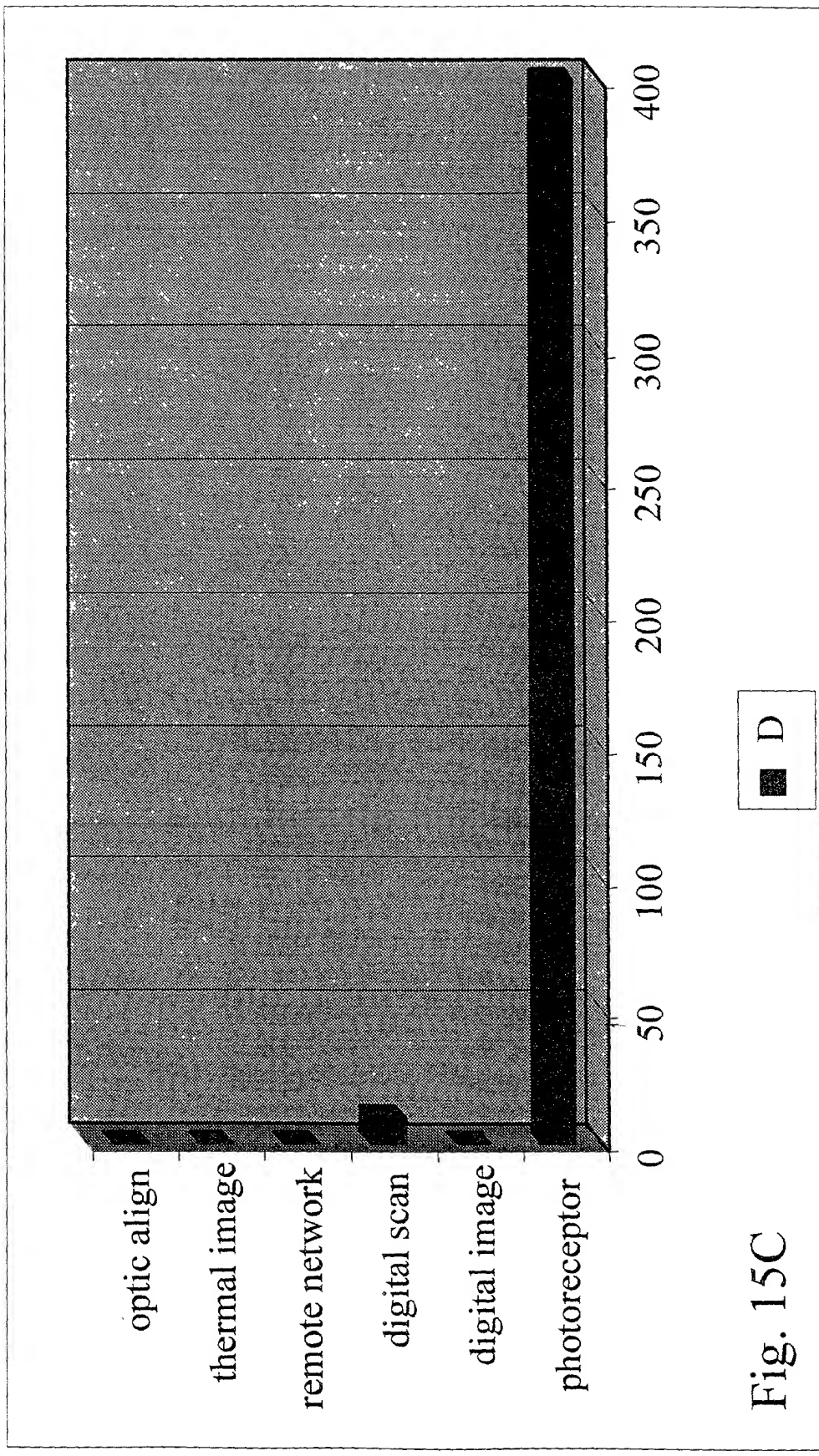
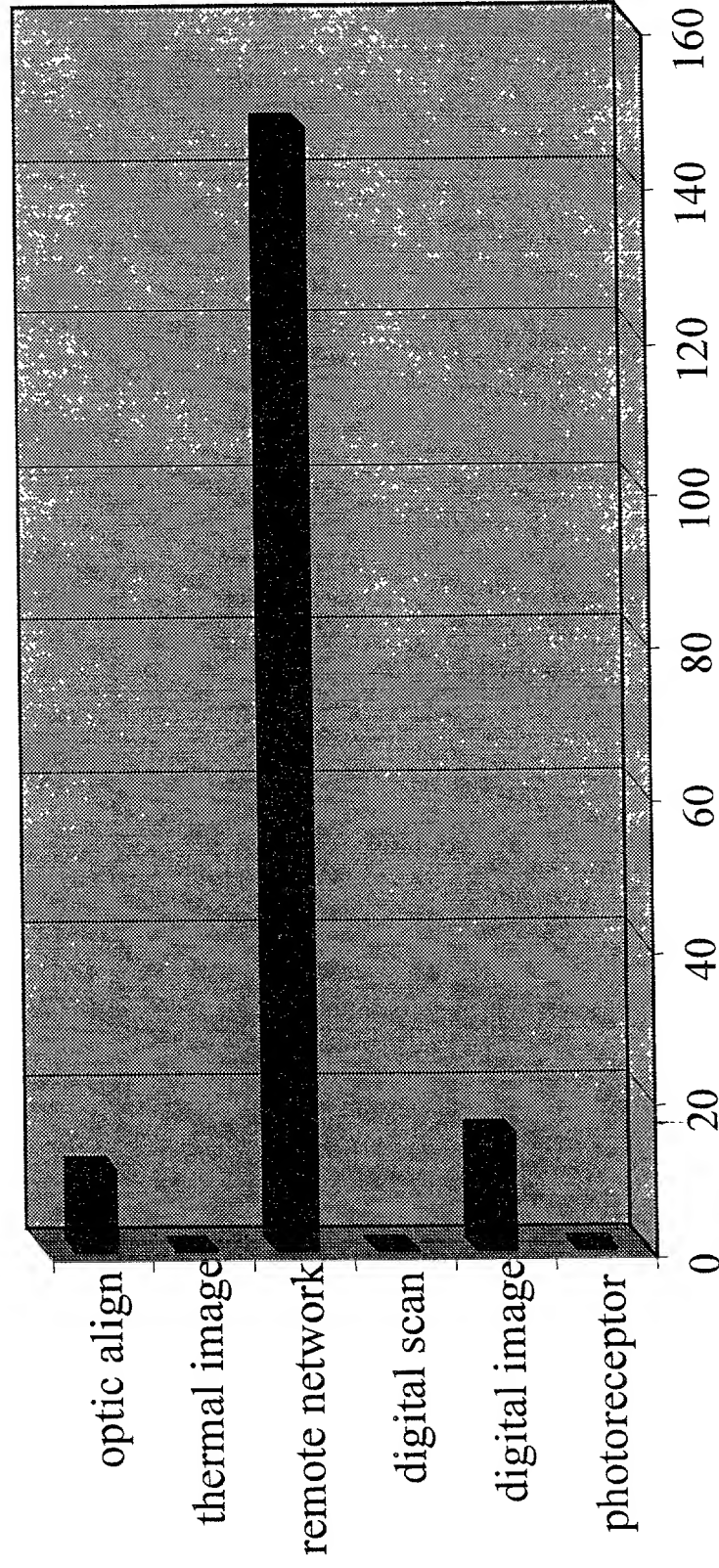


Fig. 15C

# Assignee Composite Score



F

Fig. 15D

## Assignee Composite Score

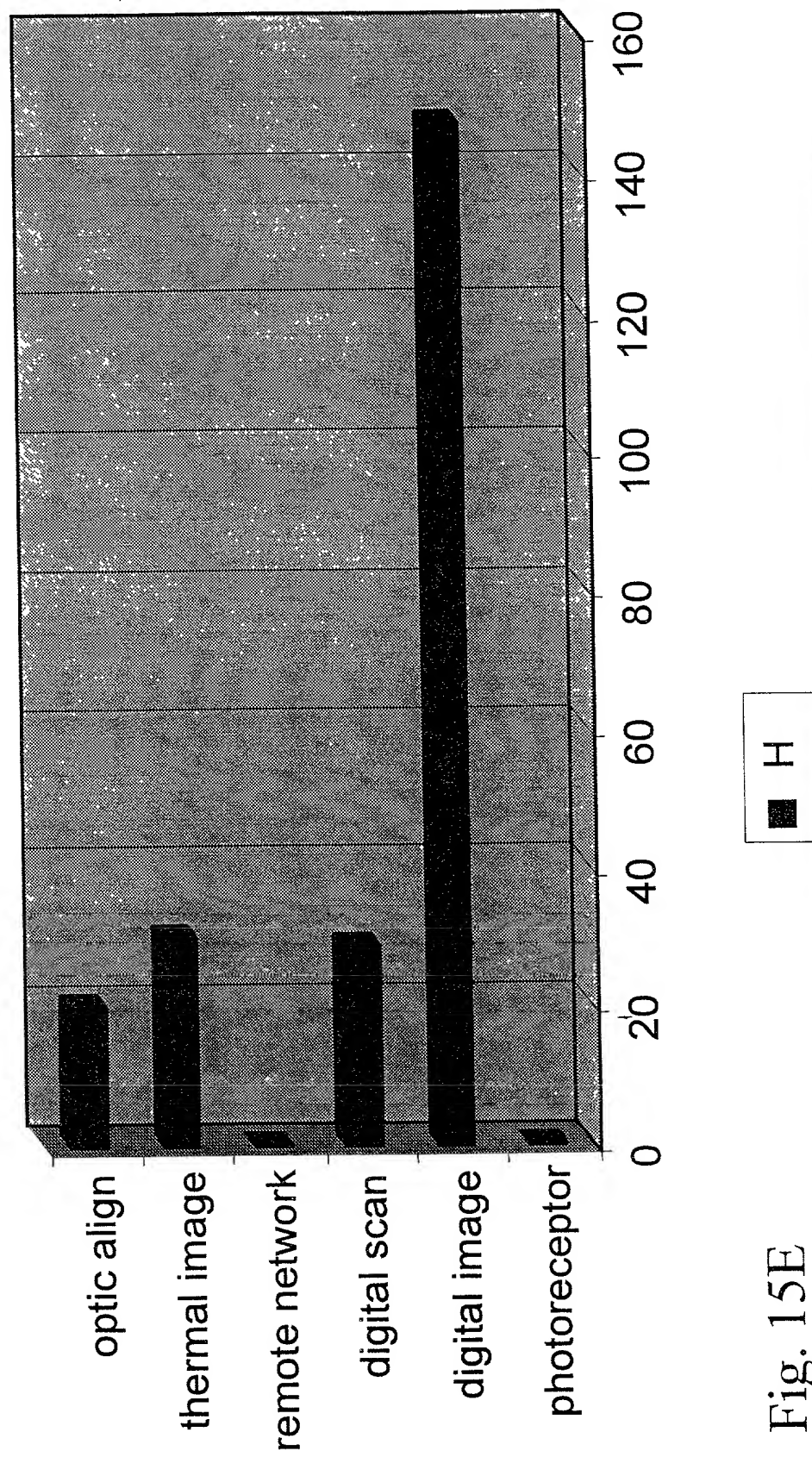


Fig. 15E



# Graphical Representation of Assignee Composite Score

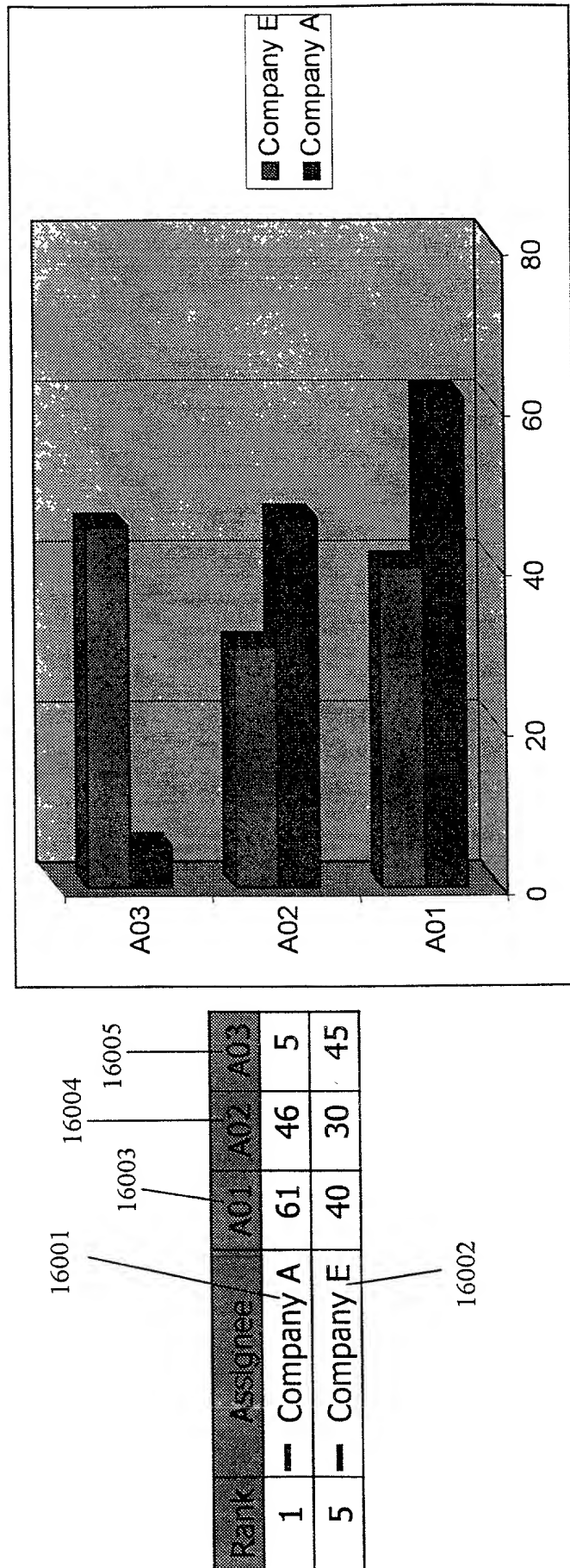


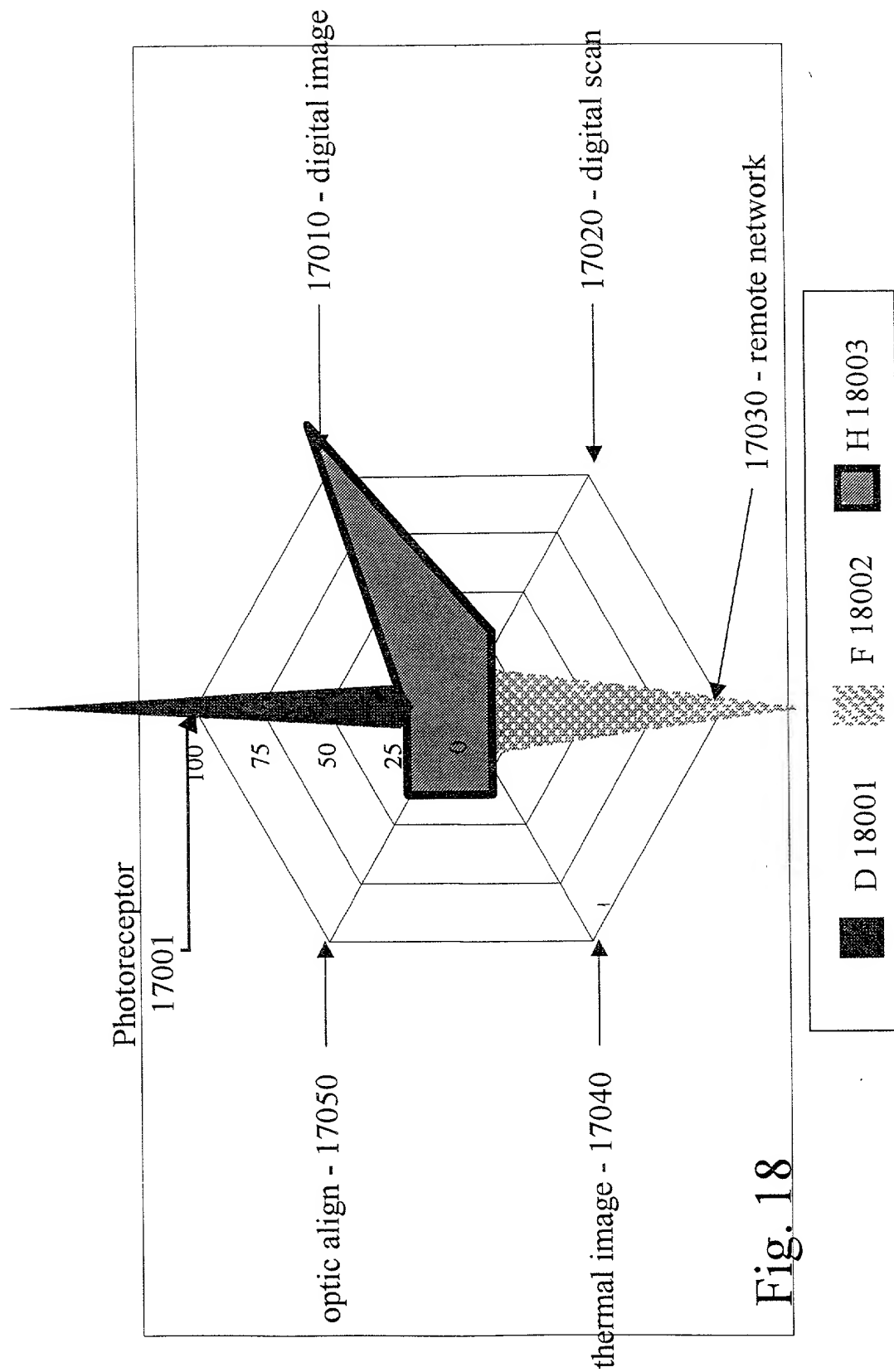
Fig. 16

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	2101	2102	2103	2104	2105	2106	2107	2108	2109	2110	2111	2112	2113	2114	2115	2116	2117	2118	2119	2120	2121	2122	2123	2124	2125	2126	2127	2128	2129	2130	2131	2132	2133	2134	2135	2136	2137	2138	2139	2140	2141	2142	2143	2144	2145	2146	2147	2148	2149	2150	2151	2152	2153	2154	2155	2156	2157	2158	2159	2160	2161	2162	2163	2164	2165	2166	2167	2168	2169	2170	2171	2172	2173	2174	2175	2176	2177	2178	2179	2180	2181	2182	2183	2184	2185	2186	2187	2188	2189	2190	2191	2192	2193	2194	2195	2196	2197	2198	2199	2200	2201	2202	2203	2204	2205	2206	2207	2208	2209	2210	2211	2212	2213	2214	2215	2216	2217	2218	2219	2220	2221	2222	2223	2224	2225	2226	2227	2228	2229	2230	2231	2232	2233	2234	2235	2236	2237	2238	2239	2240	2241	2242	2243	2244	2245	2246	2247	2248	2249	2250	2251	2252	2253	2254	2255	2256	2257	2258	2259	2260	2261	2262	2263	2264	2265	2266	2267	2268	2269	2270	2271	2272	2273	2274	2275	2276	2277	2278	2279	2280	2281	2282	2283	2284	2285	2286	2287	2288	2289	2290	2291	2292	2293	2294	2295	2296	2297	2298	2299	2300	2301	2302	2303	2304	2305	2306	2307	2308	2309	2310	2311	2312	2313	2314	2315	2316	2317	2318	2319	2320	2321	2322	2323	2324	2325	2326	2327	2328	2329	2330	2331	2332	2333	2334	2335	2336	2337	2338	2339	2340	2341	2342	2343	2344	2345	2346	2347	2348	2349	2350	2351	2352	2353	2354	2355	2356	2357	2358	2359	2360	2361	2362	2363	2364	2365	2366	2367	2368	2369	2370	2371	2372	2373	2374	2375	2376	2377	2378	2379	2380	2381	2382	2383	2384	2385	2386	2387	2388	2389	2390	2391	2392	2393	2394	2395	2396	2397	2398	2399	2400	2401	2402	2403	2404	2405	2406	2407	2408	2409	2410	2411	2412	2413	2414	2415	2416	2417	2418	2419	2420	2421	2422	2
--	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	---



17030

# Assignee Composite Score





# Assignee Composite Score

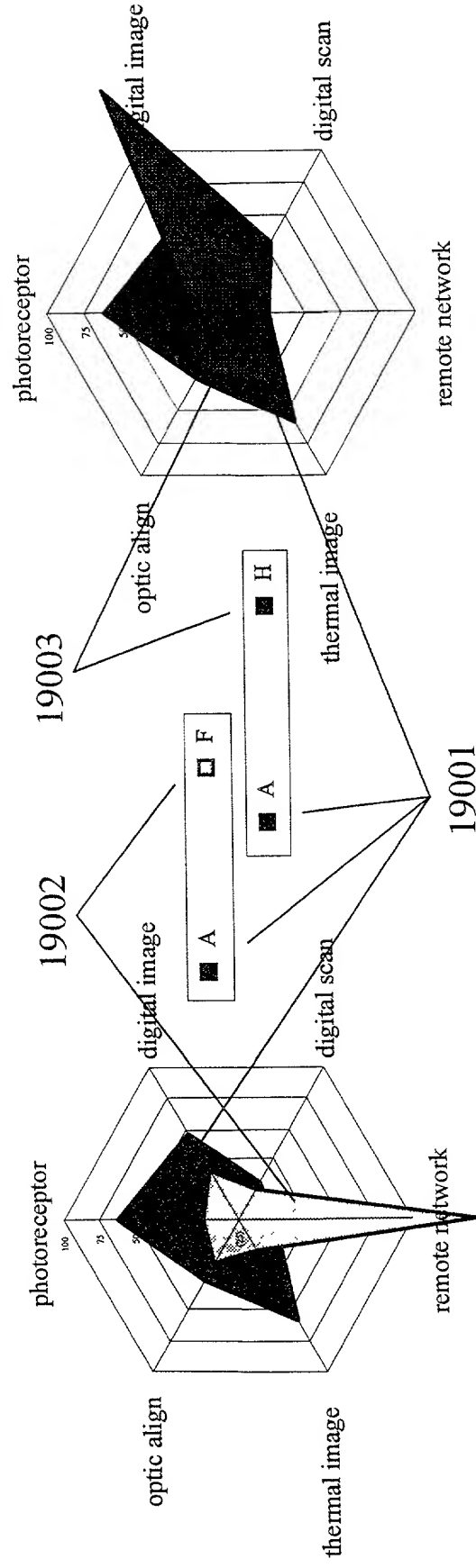


Fig. 19

20100

# Target Partner 1 Assignee Specific Cell Selection Indices

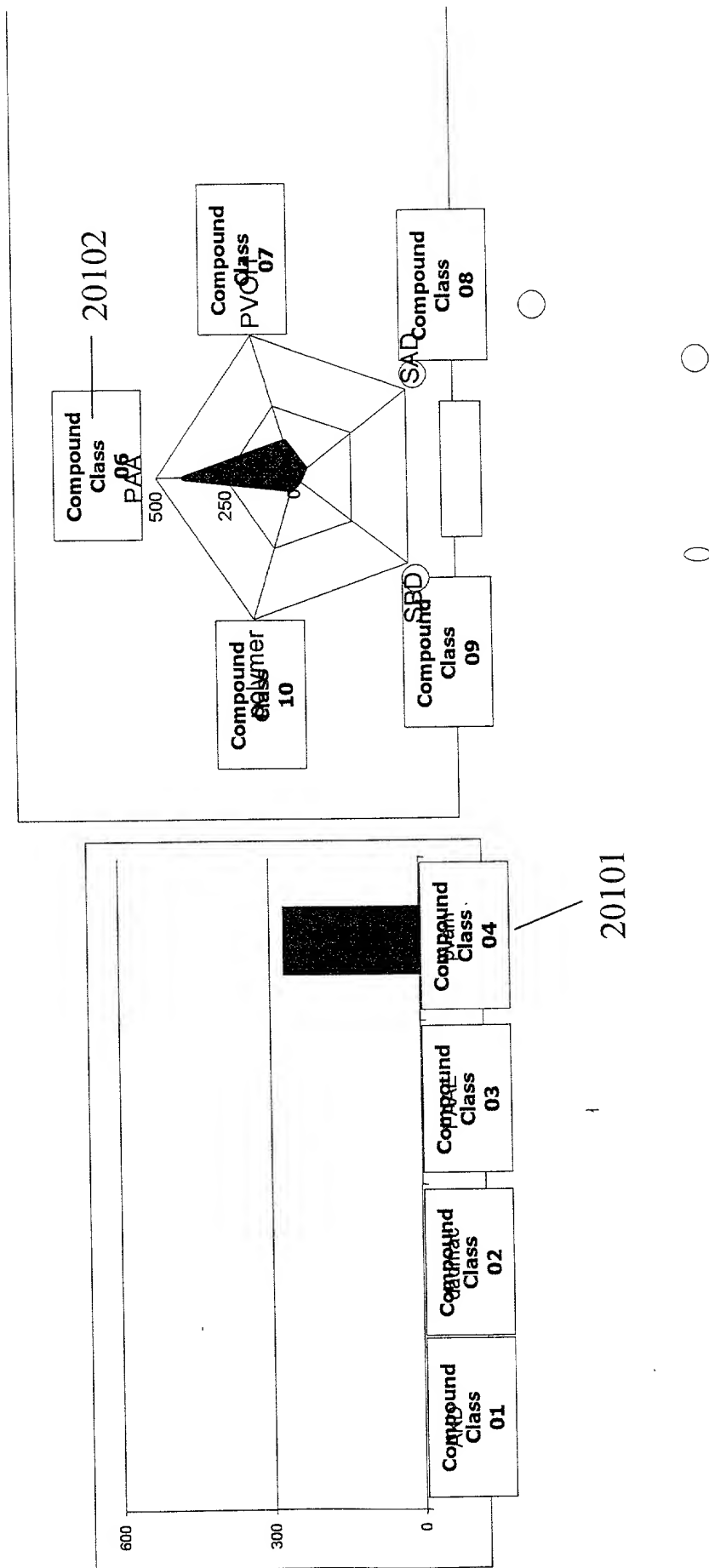
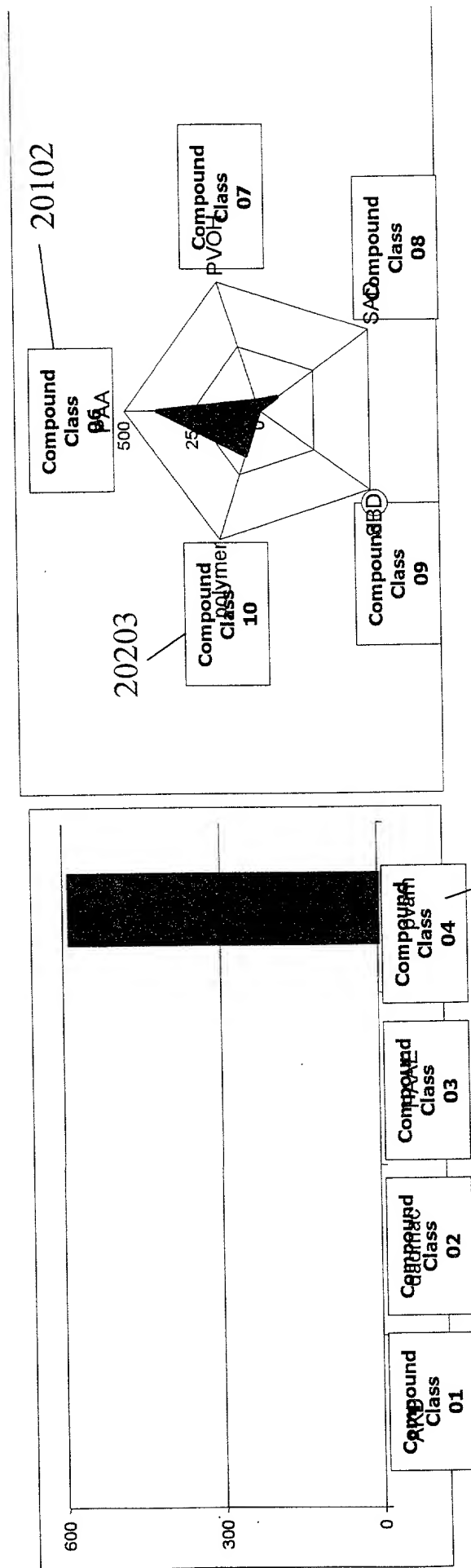


Fig. 20A

20200

# Alternative Partner 2 Assignee Specific Cell Selection Indices



20101

Fig. 20B

# Alternative Partner 3

## Assignee Specific Cell Selection Indices

20300

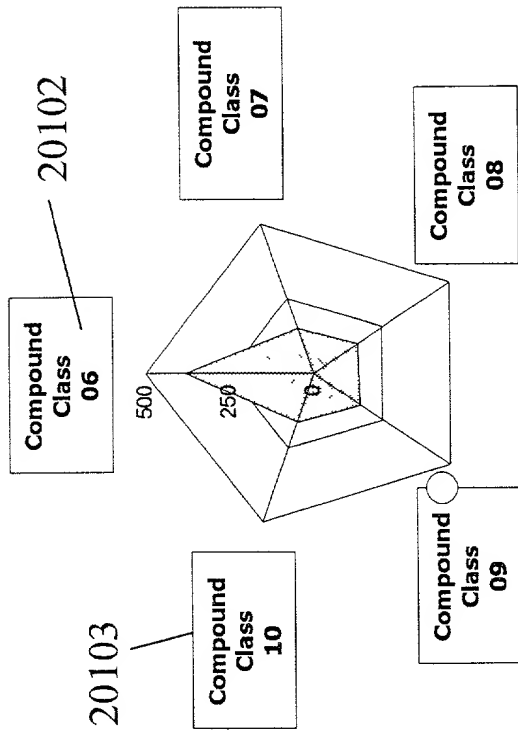
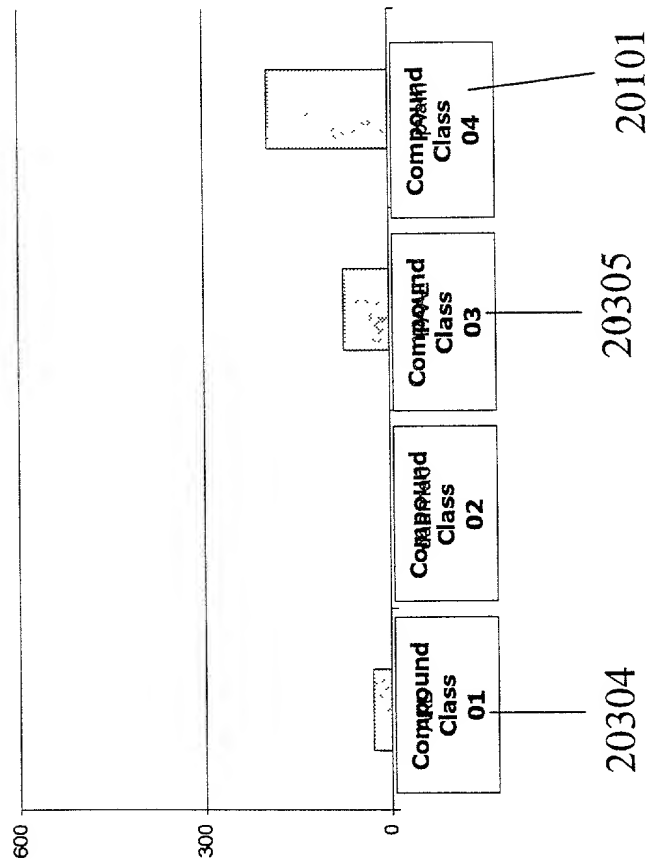


Fig. 20C

# Assignee Field Index vs. Patent Count

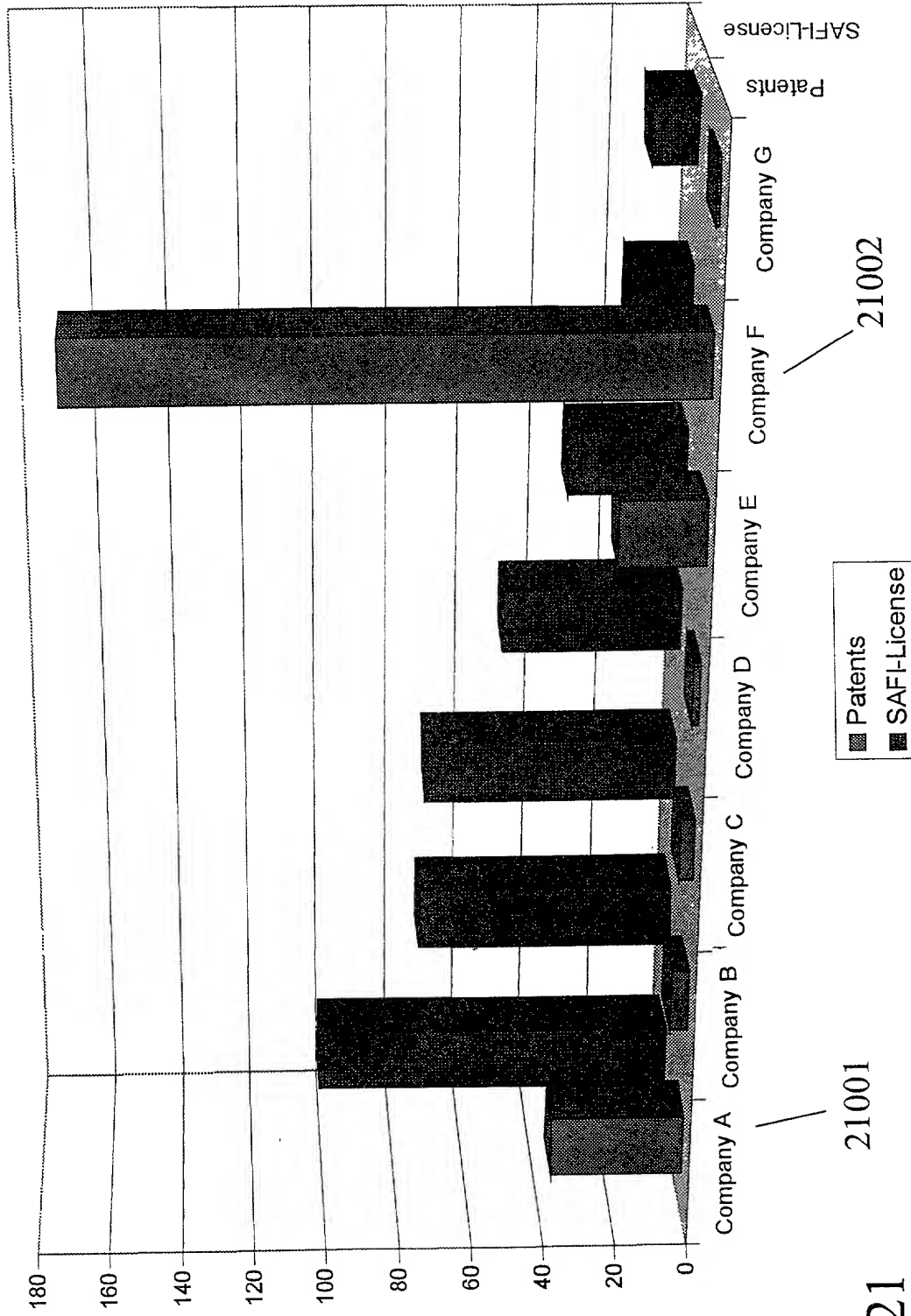


Fig. 21

# Standardized Assignee Cell Index - Application B

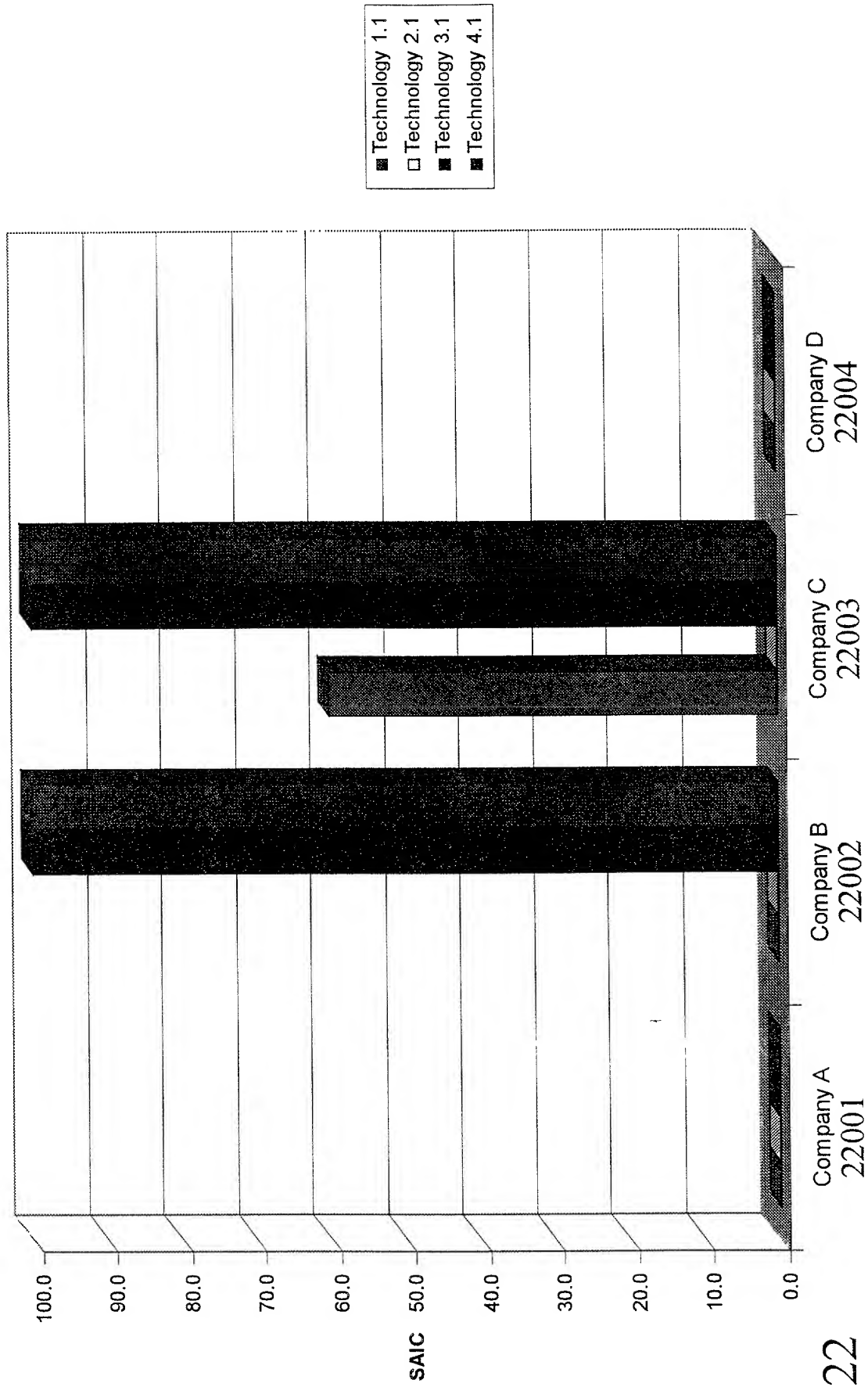


Fig. 22

# Standardized Assignee Cell Index - Application C

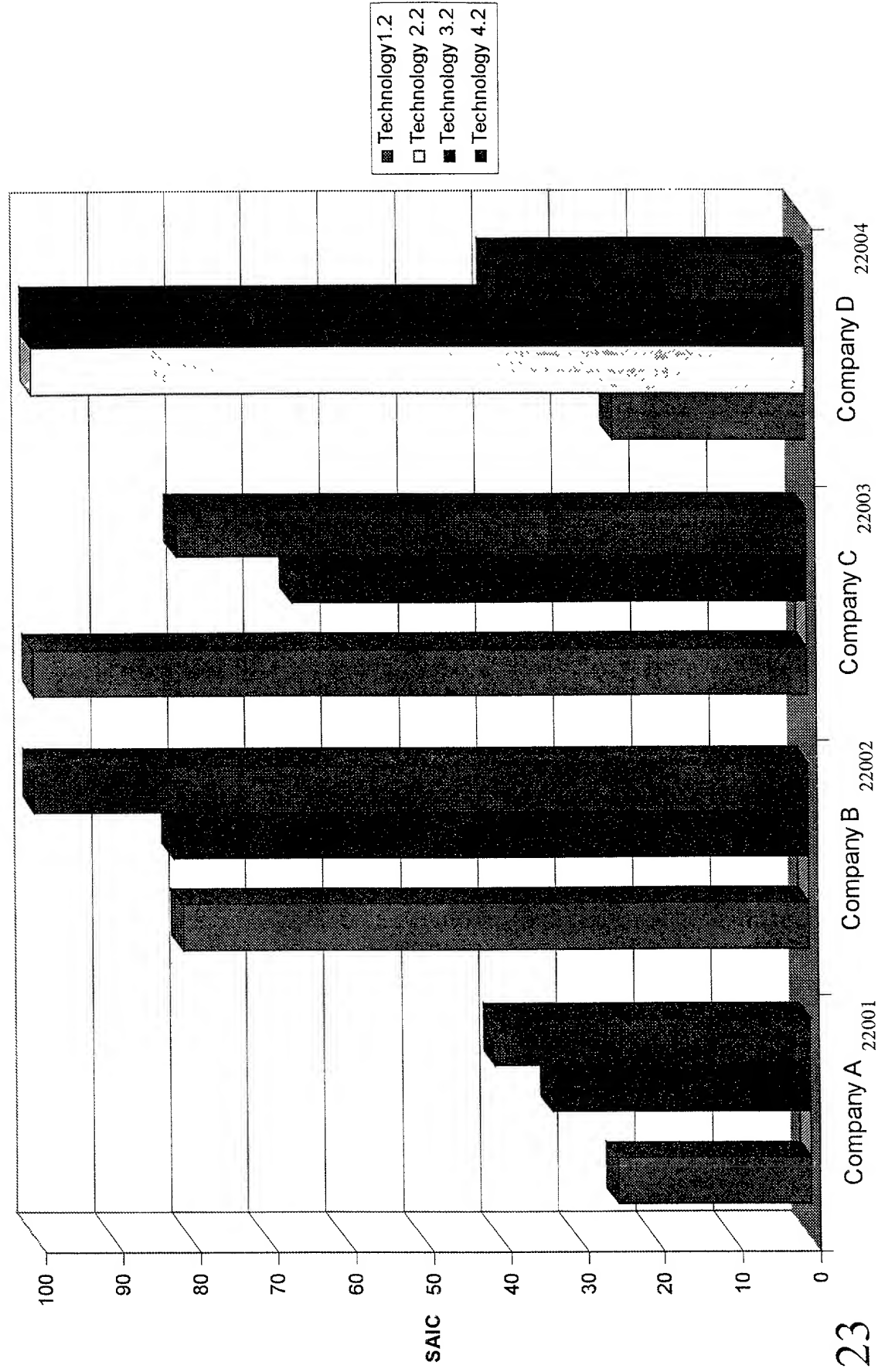


Fig. 23

# Standardized Assignee Cell Index: Company A vs.

## Company B

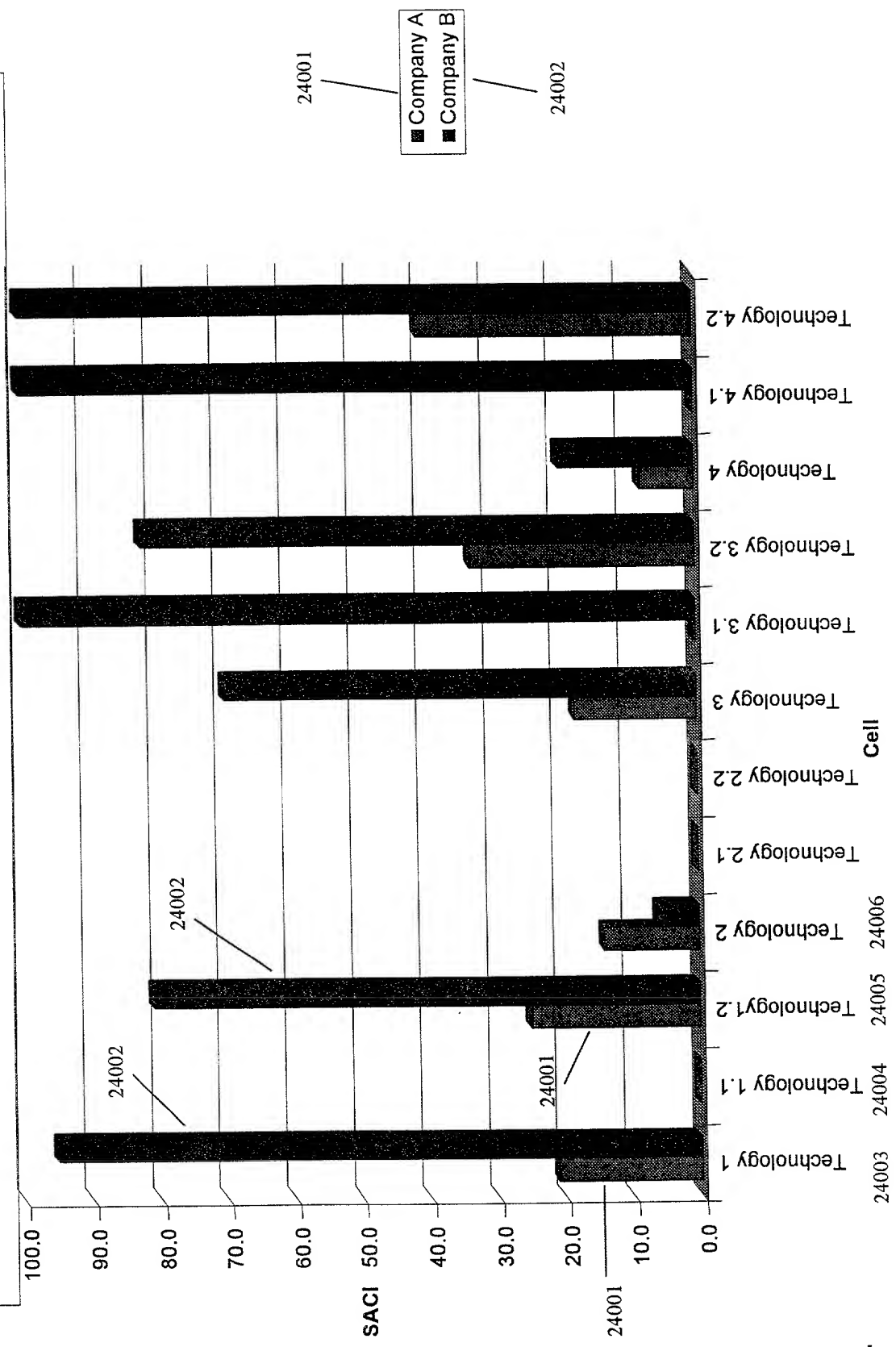


Fig. 24



# Naturally Defined Clusters

Clusters	Count of Cells	Occurrences
C05,A05	2	18
C06,A06	2	18
A01,C01	2	16
A02,C02	2	14
A05,C05	2	14
A06,C06	2	14
B06,C06	2	10
C02,C05	2	10
C01,A01	2	8
C03,C05,C02	3	6
C02,C03	2	6
C05,C02	2	6
C06,B06	2	6
C04,A04,A06,C06	4	4
C06,A06,C05,A05	4	4

	01	02	03	04	05	06
A near infrared						
B far infrared						
C infrared						
	photoreceptor	digital image	digital scan	wireless network	thermal image	optic align

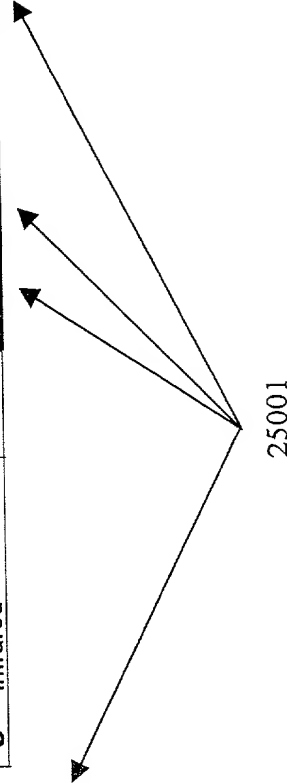


Fig. 25A

# Top Assignees Across a Selected Cluster

C02, C03, C05

C02, C03, C05
Eastman Kodak
Minnesota Mining & Manufacturing
Texas Instruments
United States Of America
Hughes Electronics
Polaroid
Raytheon
Matsushita Industrial Electric
Us Philips
He Holdings Dbh Hughes Electronics
Honeywell
Agfa-Gevaert
Massachusetts Institute Of Technology
Cairns & Brother
Nec
Raytheon Ti Systems

Fig. 25B

# Top Inventors

## Eastman Kodak

Inventor	Hits	Patents	Weighted Hits	Weighted Action
Chapman, Derek D.	10	10	11	4
DeBoer, Charles D.	8	8	9	5
Evans, Steven	6	6	6	3
Burberry, Mitchell S.	3	3	4	3
Schildkraut, Jay S.	2	2	3	4
Tutt, Lee W.	2	2	3	3
Momot, David	2	2	2	3
Bugner, Douglas E.	2	1	2	4
Byers, Gary W.	2	1	2	6
Kolb, Jr., Frederick J.	2	1	2	2
Vogel, Richard M.	2	1	2	1
Harvey, Donald M.	1	1	3	4
De Groot, Gerald H.	1	1	2	5
McIntyre, Dale F.	1	1	2	1
Simpson, William H.	1	1	2	3
Bloom, Richard M.	1	1	1	2

Fig. 26

# Internet Portal Based Patent Search Tool

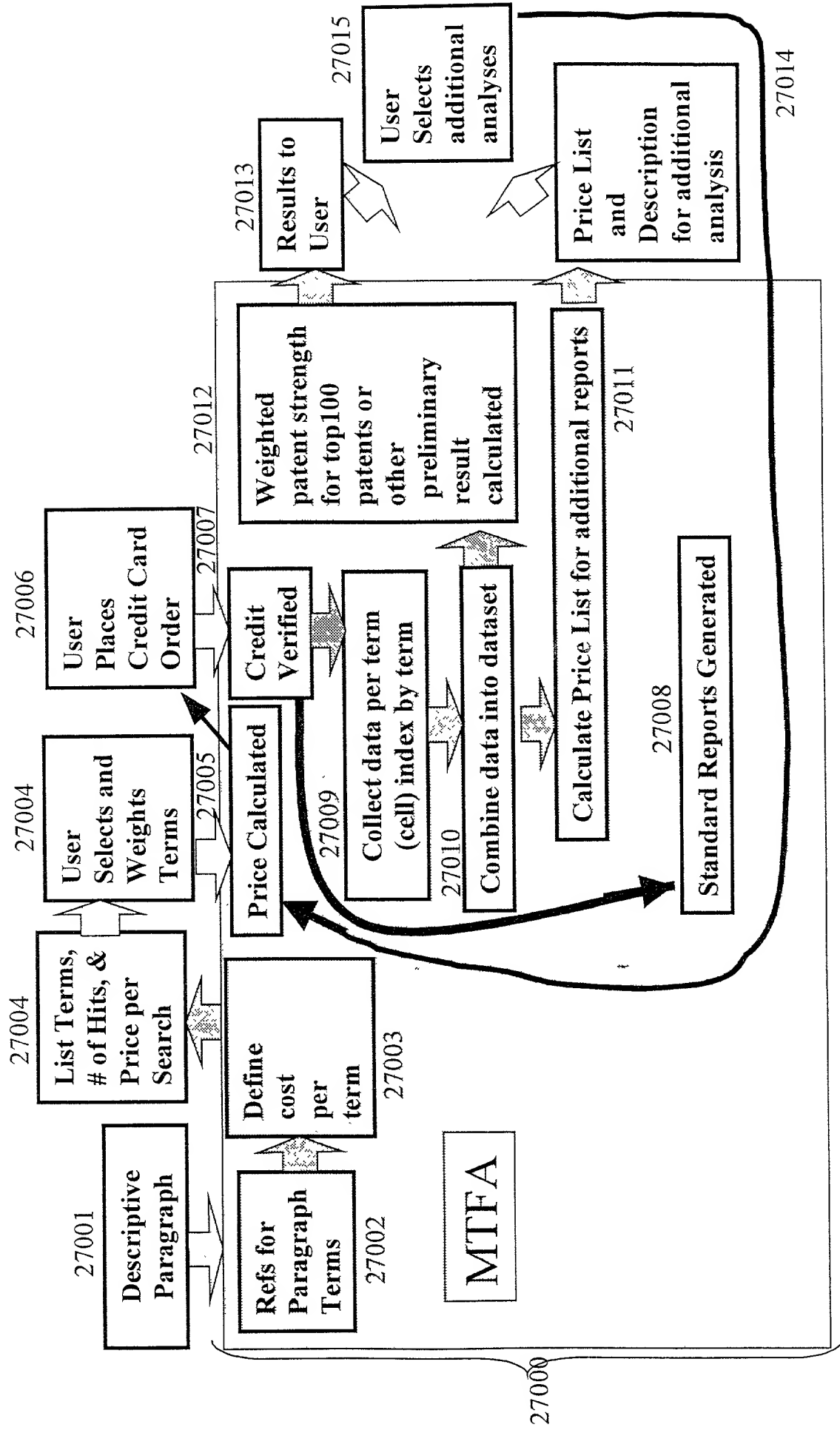


Fig. 27

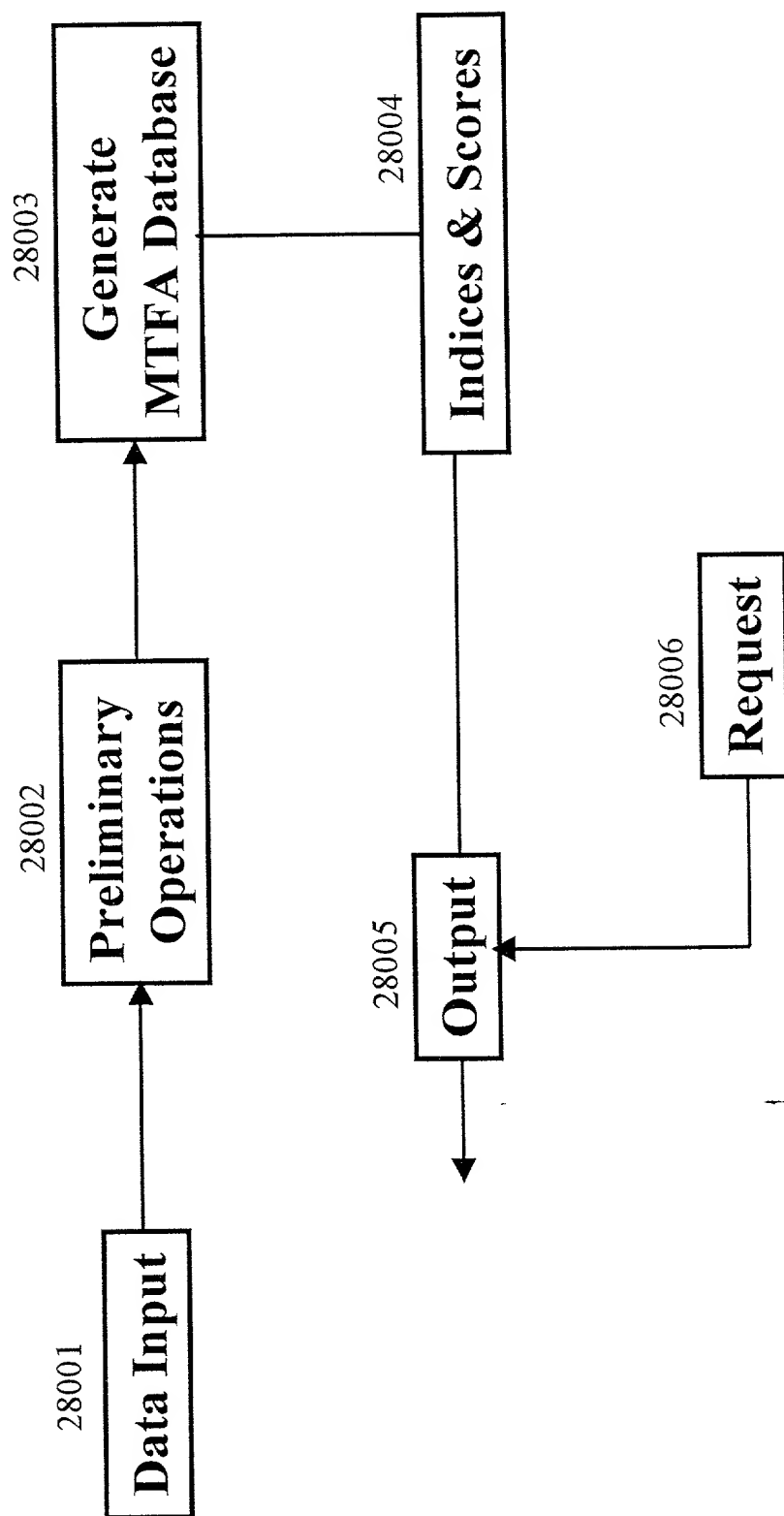


Fig. 28

# MTFA Altitude

All Information 29001

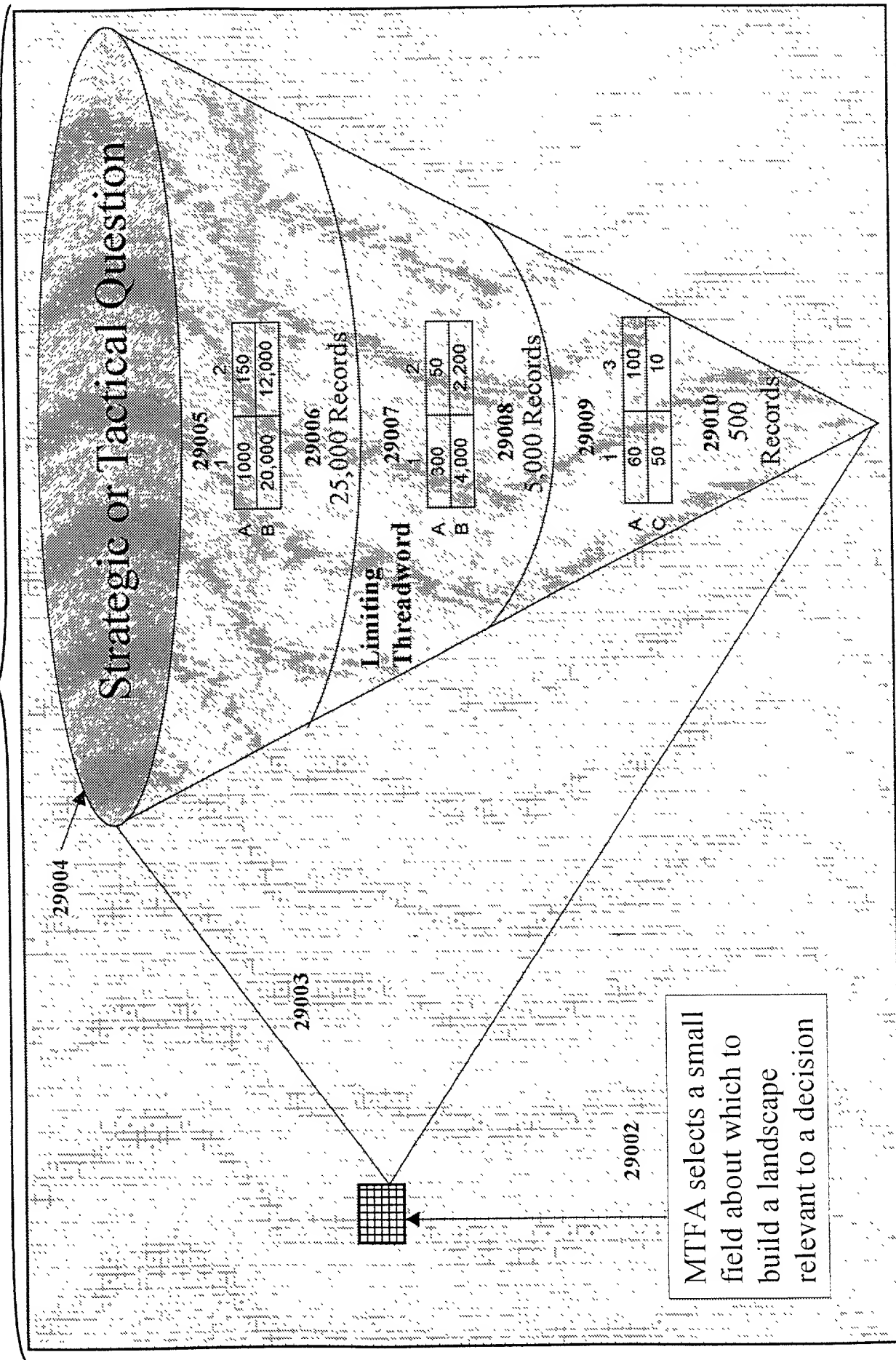


Figure 29